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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,352	09/29/2000	Tony A. Craft	SP00-295	1123

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CORNING INCORPORATED
SP-TI-3-1
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EXAMINER

HOFFMANN, JOHN M

ART UNIT PAPER NUMBER

1731

DATE MAILED: 09/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/675,352	CRAFT ET AL.	
	Examiner	Art Unit	
	John Hoffmann	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,12-17 and 19-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10,12-17 and 19-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on 7/02/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 09/522,220 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 12-17, 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art Teaching, found on pages 1-2 of the present specification (hereinafter referred to as 'PAT') in view of Smith (The Wealth of Nations Book 1, Chapter 1).

The PAT discloses the invention substantially as claimed, except for the step of transferring the preform. Smith discloses that "The greatest improvement" in production comes from division of labor (page 1, line 1). Paragraphs 6-8 of Smith discloses three advantages of dividing labor. It would have been obvious to divide the labor of the PAT process for any or all of the reasons given by Smith. Namely, it would have been obvious to have one workman/machine devoted to the PAT creation of a draw tip on the

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preform then passing it on to another workman/machine to draw the fiber - for any or all of the advantages of Smith.

This combination does not provide for having the profiles being substantially identical to each other. It would have been obvious for the artisan (who is dividing the labor of the PAT process) to have the two working furnaces at substantially the same conditions/temperatures, because one of ordinary skill would realize if the temperatures were substantially different, it would take time to for the preform to adapt to the new thermal profile. Alternatively, if the draw furnace was at a higher (or lower) temperature than the pre-forming furnace, the drawn fiber would change characteristics because the temperature of the preform would change to match the furnace. And this would change the viscosity of the preform and thus change the draw characteristics (i.e. would make steady-state drawing conditions impossible) until the preform achieved adapted the temperature profile of the furnace.

Claim 13 calls for a tip ratio between about 5 and about 12. It is deemed that such would have been inherent in the PAT method, because the present invention simply transfers the preform after the tip is shaped. Alternatively, it would have been an obvious matter of routine experimentation to determine the optimal shaping process - and such would result in a ratio about between 5 and 12. The optimal tip shape appears to be an inherent part of the PAT process, because if the hand stripping is not to be completed until all the trash glass is removed. At which point one can make a usable fiber - and it would seem that any process which yields a functional fiber would be "optimized" to at least a certain extent. Examiner realizes that this does not

automatically mean that the claimed ratio is met: the PAT method might have a tip ratio of 3 or 22. Examiner will consider any evidence/argument that the PAT method would not yield the claimed ratio. But given that the only difference appears to be the transfer of the preform, it would be reasonable to expect that the tips would be the same.

Claim 14 is substantially the same as claim 13, except for the narrower range: between 6 and 9. It is deemed to be obvious for the same reason claim 13 is obvious.

Claims 17, 23, 26 and 19 : see why claims 13-14 are obvious, above.

Claims 15-16, 24-25: it would have been an obvious matter of routine experimentation to determine workable temperatures - depending upon the type of glass used.

Claim 21 calls for a plurality of apparatuses. IT would have been obvious to have as many furnaces as desired to make as much fiber as desired.

Claim 22: The claims are comprising in nature and are open to having additional pregobbing apparatuses - beyond the "lesser number". Alternatively, as applicant seems to indicate, no one has actually pre-gobbed before, there would be more drawing towers in existence (world wide) than pre-gobbing apparatus. The claim does not seem to limit the apparatus to be in the same building. Furthermore, there doesn't seem to be any difference between what is a drawing apparatus and pregobbing apparatus: for example, there claim doesn't require a drawing drum to be part of the drawing apparatus. Most importantly, the concept of having an appropriate number of apparatuses for each step so as to prevent bottlenecks is not typically an inventive

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concept. If one step takes three times as long as following step, one would expect to have three times as many 3 times as many on-going processes of the first type as of the second type. Such would have been obvious so as to prevent any apparatus from being idle.

Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the PAT and Smith as applied to claims 10 above, and further in view of Blankenship 5059229 or Lysson 5897681.

Lysson and Blankenship are superior drawing methods that use induction furnaces. It would have been obvious to use the Lysson or Blankenship methods for drawing for their respective advantages. It would have been further obvious to perform the pregobbing in identical furnaces so as to have interchangeable parts and because such would be an a sure way of having identical heating conditions. Different furnaces would require different replacement parts and additional training for any technician who needed to fix the furnaces.

Response to Arguments

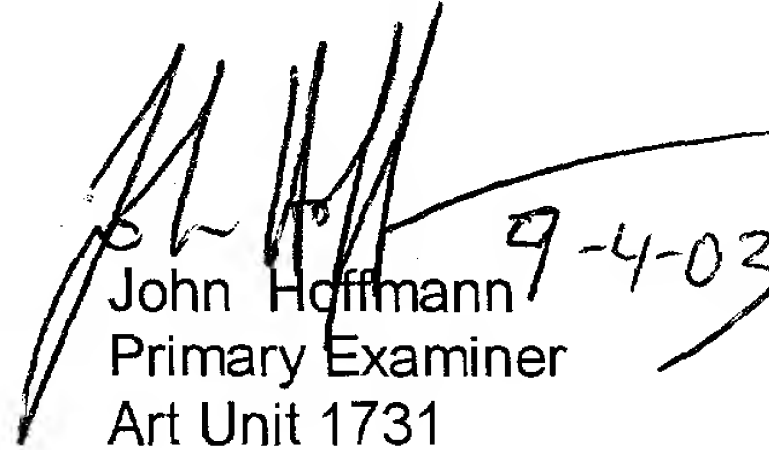
Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. The arguments regarding the temperature profile are convincing.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is 703-308-0469. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.


John Hoffmann
Primary Examiner
Art Unit 1731
9-4-03

jmh